

Office of Vermont Health Access Coverage Position

Subject: Pulse Oximetry for Home Use

Description

Coverage Position

Medical Appropriateness/Necessity: birth to 24 mos. / >24mos. / Continuous w/24 trending memory / Continuous w/o trending memory/Spot Oximeter

Additional Information

Coding/Billing Information

Vendor and Provider Responsibilities

Sources

DESCRIPTION

Pulse oximetry measures oxygen saturation levels using a noninvasive probe. Pulse oximetry provides an estimate of arterial oxy-hemoglobin saturation (SaO₂), using selected wavelengths of light, to determine the saturation of oxy-hemoglobin (SpO₂).

Pulse oximetry is considered a safe procedure, but has device limitations. False-negative results for hypoxemia and/or false-positive results for normoxemia may lead to inappropriate treatment of an individual. In addition, tissue injury may occur at the site of the probe, as a result of inappropriate use (e.g., pressure sores from prolonged application or electrical shock and burns from the substitution of incompatible probes between instruments). **(1)**

Coverage Position

Coverage of home oximeters is subject to the terms, conditions and limitations of the Durable Medical Equipment (DME) benefit.

Continuous home pulse oximetry, as adjunctive monitoring, is considered ***medically necessary*** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**

MEDICAL APPROPRIATENESS/NECESSITY

➤ *Continuous pulse oximeter with 24hr- trending memory*

Birth up to 12-months

The use of **continuous** home pulse oximetry with the 24hr-trending memory, for pediatric individuals, is considered **medically appropriate** if **all** of the following criteria are met:

- Is a premature birth, newborn or a child less than 12-months of age **and**
- Diagnosed with a respiratory or cardiovascular disease requiring oxygen supplementation; **and**
- Oxygen need varies from day to day or per activity (e.g., feeding, sleeping, movement); **and**
- Medical need exists to maintain oxygen saturation within a very narrow range; **and**
- A trained caregiver is available to respond to changes in the oxygen saturation. (see prescription for pulse oximeter)

OR ...

- Is an individual of any age being weaned off of a ventilator. (This scenario would be for a period of < 6 months).

Note: *Generally, these conditions are only seen in premature infants with bronchopulmonary dysplasia (BPD) who are less than 18 months of age.*

Note: *Continuous for this age group means a pulse oximeter, that has the capability to identify motion artifact and thus decrease the number of nuisance alarms, prints out readings and has a 24hr trending, down-loadable memory and at least an 8-hour rechargeable battery back-up.*

Note: *Prior authorization is not required for the first 6months **if** use of this grade oximeter is required beyond 6 months prior authorization **is** required.*

*Regardless of whether a prior authorization is required or not the combination prescription/ DME provider medical necessity form **must** be completed **and** current **and** available in the beneficiary's chart should a retrospective review be done.*

All records are subject to retrospective review by the Office of Vermont Health Access

Note: *The above criteria for the Continuous 24hr trending, downloadable memory oximeter are for the most common cases; occasionally an exception to the rule will occur, in those cases a Prior Authorization request will be required for review of the medical necessity for this grade oximeter.*

➤ **Continuous Pulse Oximeter (non-trending, but with a memory)**

12 months of age and up:

The use of a **continuous** home pulse oximetry, for individuals greater than 12 months of age, is considered **medically appropriate** if **all** of the following criteria are met:

- Chronic, progressive condition that requires continuous oxygen therapy; **and/or**
- Documented, unpredictable, sub-therapeutic fluctuations of oxygen saturation levels that cannot be clinically determined and would be expected to have a physiological adverse effect if not treated; **and**
- A trained caregiver is available to respond to changes in oxygen saturation. (see prescription for pulse oximeter)

Note: A Continuous grade pulse oximeter with the 24hr downloadable trending memory will *not* be approved for this category of care or age range. There are pulse oximeters that have the capability of doing continuous & intermittent or spot monitoring that have up to 8-hr memory print outs and alarms that are appropriate for home care use for this age category.

Note: Prior Authorization is NOT required for this level of oximetry

*Regardless of whether a prior authorization is required or not the combination prescription/ DME provider medical necessity form **must** be completed **and** current **and** available in the beneficiary's chart should a retrospective review be done.*

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Birth up to 12monthsThe use of a continuous pulse oximeter may be appropriate for this age group when

- Certain neurologic impairments or progressive muscular weakness exists e.g.: SMA type 1, etc. **or**
- Severe laryngomalacia **or**
- Primary or secondary tracheomalacia **or**
- When *recurrent severe aspiration* is suspected **or**
- An infant with a condition in whom sudden life-threatening apnea may occur

Note: Children who recurrently de-saturate and require minimal intervention are candidates for and should have home oxygen. For others, the episodes should prompt emergent referral to the hospital for surgical or other definitive management. **(2)**

Note: IF a child is obstructing their airway, oxygen will not help. **(3)**

➤ Spot Oximeter

All age groups:

The use of spot pulse oximeter is considered medically appropriate if **all** of the following criteria are met:

- A compromised, unstable respiratory or cardiac condition exists, where the absence of a real time saturation measurement represents an immediate and demonstrated health risk **and**
- When the beneficiary and/or caregivers have been trained in the proper use of the device, the proper recording of measurements, and are trained in whatever action is necessary to reverse the low oxygen saturation level **and**
- Where the availability of a spot pulse oximetry unit would significantly decrease the need for emergency department visits for an assessment and intervention **and**
- When leaving the home environment could potentially place the beneficiary at greater risk of complications, infections due to exposure. (This may be only seasonal; therefore the need for in-home pulse oximetry may not be the most cost effective way of providing treatment) **and**
- Where Home Health skilled nursing services are not already in place for on-going skilled cardio-pulmonary assessments.

Note: The Office of Vermont Health Access does **not** cover home pulse oximetry because it is considered experimental, investigational or unproven for (but not limited to) the following conditions:

- Screening or diagnostic testing for sleep apnea
- The use of **continuous** home pulse oximetry, for routine monitoring of an individual with oxygen, is considered **not medically appropriate**.
- The use of pulse oximetry in the home, as part of an individual's asthma management, is considered **not medically appropriate**. (NIH Global Initiative for Asthma, National Heart, Lung, and Blood Institute, January, 1995)

Note: Prior authorization is not required for this level of oximetry usually this will be a purchase.

Exception if the expected need is to be 3 months or less rental will be allowed without a prior authorization

Any rental beyond the first 3 months will require a Prior Authorization.

Regardless of whether a prior authorization is required or not the combination prescription/DME provider medical necessity form **must** be completed **and** current **and** available in the beneficiary's chart should a retrospective review be done.

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ADDITIONAL INFORMATION

Factors, agents or situations that may affect accuracy of readings and/or performance of the pulse oximetry include:

- Motion artifact (e.g., movement)
- Abnormal hemoglobin levels
- Intravascular dyes
- Exposure of probe to ambient light sources during measurement
- Low perfusion states (e.g., peripheral vascular disease, low body temperature)
- Skin pigmentation (e.g., very dark pigmented African-American individuals)
- Nail polish or nail coverings when using finger probe (e.g., acrylic nail overlays)
- Inability to detect saturations below 83% with same degree of accuracy and precision seen at higher saturations

Validations of low pulse oximetry derived saturations should be evaluated by arterial blood gas samples in conjunction with full physical assessment of the individual.

Note: *"It should be recognized that in individuals receiving supplemental oxygen at high FiO_2 and showing a high SpO_2 (99%-100%), there can be a dramatic decrease in PaO_2 before a corresponding decrease in oxygen saturation is manifested due to the shape of the oxygen-Hb dissociation curve (Sinex, 1999)." In other words, an individual can show high oxygen saturation but really be hypoxic by real oxygen levels in relation to other components of the arterial blood gas evaluation.*

Coding / Billing Information

Regardless of whether a prior authorization is required or not the combination prescription/ DME provider medical necessity form **must** be completed **and** current **and** available in the beneficiary's chart should a retrospective review be done.

Oximeters					
Billing and Prior – Authorization Instructions					
Current Procedural Terminology (CPT)	Description	Allowed Amount	PA	Price	Comments
E0445	Spot check Oximeter	<u>Purchase only.</u>	Prior authorization not required	\$299.00	If initially assessed that Medical necessity will exceed beyond 3 months.
E0445RR	Spot check Oximeter	<u>Rental only</u> limited to 3 months	Prior authorization <u>is not</u> required for the first 3 Months Prior authorization <u>is required</u> for a rental extension beyond 3 months.	\$29.90 per month	If medical necessity indicates a need of 3 months or less.
E0445TG RR	Continuous w/24hr trending, downloadable memory	<u>Rental only</u> Prior Authorization required if needed beyond the first 6 months.	Prior authorization <u>is not required</u> for the first 6 months. Extension beyond 6 months does require PA.	\$370.00 per month.	PA is required beyond first 6 Months Retrospective review will be done.
E0445TF RR	Continuous with 8 hr memory, alarms etc	Rental only No prior authorization required	No prior authorization is required.	\$282.00 per month	Retrospective review will be done.

Vendor Responsibilities

- **The vendor will be responsible for expert oversight:**
 - The OVHA expectation is that vendors will have their Respiratory Therapist (RT) visit the beneficiary while in-patient before discharge if applicable and/or once the beneficiary is at home, at time of delivery of the oximeter (except for the spot oximeter) to: set-up, instruct in proper use, alarms and other features and to review emergency procedure should the equipment fail.
 - A follow-up visit by the RT will be repeated in **7** days and then every **3** months as long as the equipment is needed and remains in the home. These visits should be documented and kept in the beneficiary's file at the vendor's facility.
 - The vendor will instruct those beneficiaries for whom a spot oximeter is purchased in the proper care and storage of, correct use of and of the warranty information. The vendor will also instruct the beneficiary to **not** throw the oximeter away when or if s/he no longer needs it.

Provider Responsibilities

- **The Provider will be responsible:**
 - To develop and instruct the primary care person in the plan of care as it relates to the oximeter and responses to low readings
 - To review and update the plan of care at each visit and to communicate the same to the vendor/OVHA
 - To complete the prescription form completely so as not to delay the delivery of the equipment to the beneficiary
 - To update the prescription form every 6 months and forward to the vendor so that the correct equipment and oversight can be placed or continued in the home and so that the vendor receives the correct re-imbursement rate from the Office of Vermont Health Access.

SOURCES

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www.ebme.co.uk-Article 13 – Pulse Oximetry (One of a series of articles aimed at Biomedical technicians) 10/25/05 (1)

Policies included in the Medical Policy Manual are not intended to certify coverage availability. They are medical determinations about a particular technology, service, drug, etc. While a policy or technology may be medically necessary, it could be excluded in a member's benefit plan. Please check with the appropriate department to determine if the service in question is a covered service under a particular benefit plan. Use of the Medical Policy Manual is not intended to replace independent medical judgment for treatment of individuals.

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This document has been classified as public information.

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